Notice of Allowability	Application No.	Applicant(s)	
	10/079,235	CONN, ROBERT O.	
	Examiner	Art Unit	
	Shouxiang Hu	2811	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the 07-15-4 amendment*.

2. ☒ The allowed claim(s) is/are *2-20 and 22-25*.

3. ☒ The drawings filed on *19 February 2002* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20040913*.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Shouxiang Hu

SHOUXIANG HU
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Justin Liu (RN: 51,959) on September 13, 2004.

The application has been amended as follows:

IN THE CLAIMS

1. (canceled)

2. (previously presented) The method of Claim 6, wherein the energy beam is produced by a CO_2 laser.

3. (previously presented) The method of Claim 6, wherein the energy beam is produced by a YAG laser.

4. (original) The method of Claim 3, wherein the energy beam has a wavelength of greater than 1.2 μm.

5. (previously presented) The method of Claim 6, wherein the energy beam is produced by a laser ablation system for repairing defects in photomasks.

6. (currently amended) A method for altering the semiconductor characteristics of a semiconductor element formed on a substrate, the method comprising:

directing an energy beam at the semiconductor element, wherein the energy beam is substantially absorbed by a first portion of the semiconductor element;

thinning the substrate under the semiconductor element; and

the step of directing an energy beam at the semiconductor element including directing the energy beam at the first portion of the semiconductor element through the substrate, wherein the energy beam is substantially transmitted through the substrate;

wherein the semiconductor element comprises:

a source region;

a drain region;

a channel region between the source region and the drain region;

a gate oxide formed over the channel region; and

a gate formed over the gate oxide, wherein the first portion of the semiconductor element comprises the gate, and wherein the energy beam is substantially transmitted through the channel region; and

wherein the energy beam causes the source region and the drain region to merger so as to form ~~forms~~ an ~~always on~~ always-on current path in the semiconductor element.

7. (previously presented) The method of Claim 6, further comprising:

forming a passivation layer over the semiconductor element on the substrate, and

mounting a support structure on the passivation layer.

8. (original) The method of Claim 7, wherein the support structure comprises an unprocessed wafer having an oxide layer, and wherein mounting the

support structure comprises covalently bonding the oxide layer of the unprocessed wafer to the passivation layer.

9. (original) The method of Claim 7, wherein the support structure comprises a processed wafer having an oxide layer, and wherein mounting the support structure comprises covalently bonding the oxide layer of the processed wafer to the passivation layer.

10. (original) The method of Claim 7, wherein mounting the support structure comprises using an adhesive to attach the support structure to the passivation layer.

11. (original) The method of Claim 7, wherein thinning the backside of the processed wafer comprises a grinding operation.

12. (original) The method of Claim 7, wherein thinning the backside of the processed wafer comprises a chemical-mechanical polishing (CMP) operation.

13. (original) The method of Claim 7, wherein thinning the backside of the processed wafer comprises an etch process.

14. (original) The method of Claim 6, wherein thinning the backside of the processed wafer comprises:

forming a resist layer on the backside of the processed wafer, the resist layer comprising an aperture under the transistor; and

etching the processed wafer through the aperture.

15. (original) The method of Claim 14, wherein etching the processed wafer comprises performing an anisotropic etch process.

16. (original) The method of Claim 14, wherein etching the processed wafer comprises performing an isotropic etch process.

17. (previously presented) The method of Claim 6, wherein the substrate comprises a silicon wafer.

18. (previously presented) The method of Claim 6, wherein the substrate comprises a gallium arsenide wafer.

19. (previously presented) The method of Claim 6, wherein the substrate comprises an insulating plate.

20. (previously presented) The method of Claim 6, wherein the substrate comprises an amorphous silicon layer.

21. (canceled)

22. (currently amended) The method of Claim ~~21~~ 6, wherein the gate comprises a metal layer.

23. (currently amended) The method of Claim ~~21~~ 6, wherein the gate comprises a first silicide layer.

24. (previously presented) The method of Claim 23, wherein the source region comprises a second silicide layer, and wherein the drain comprises a third silicide layer, the first, second, and third silicide layers being formed using a salicide process, wherein the first portion of the semiconductor element comprises the second and third silicide layers.

25. (original) The method of Claim 24, wherein the first, second, and third silicide layers comprise titanium silicide.

26-51. (canceled)

Allowable Subject Matter

Claims 2-20 and 22-25 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shouxiang Hu whose telephone number is 571-272-1654. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on 571-272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH
September 13, 2004

SHOUXIANG HU
PRIMARY EXAMINER